CE

ifm electronic

Operating instructions
M12 connectors for Ex i applications

ENC**A

UK

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Operating instructions (safety-related or Ex protection related part)
Remarks for safe use in hazardous areas

Functions and features

- Use in hazardous areas according to the classification

II 1G	group II, category 1G, apparatus for gas atmosphere
II 2G	group II, category 2G, apparatus for gas atmosphere

The requirements of the standards IEC60079-0 and IEC60079-11 are met.

- Use in hazardous areas according to the classification

II 1D	group II, category 1D, apparatus for dust atmosphere

The requirements of the standards EN60079-0 and EN61241-11 are met.

EC type test certificate

BVS 11 ATEX E 009 X

IEC Ex type test certificate

IECEx.BVS11.0002 X

- Marking

Ex II 1G Ex ia IIB T6 Ga Ta: -25…80 °C Ex II 2 G Ex ia IIC T6 Gb Ex II 1D Ex ia IIIC T85°C Da alternatively Ex II 1D Ex ia IIIB T85°C Da
Ex II 1G Ex ia IIB T5 Ga Ta: -25…90 °C Ex II 2 G Ex ia IIC T5 Gb Ex II 1D Ex ia IIIC T95°C Da alternatively Ex II 1D Ex ia IIIB T95°C Da

- Connection only to intrinsically safe limited circuits that do not exceed the following max. values:

Ui	30 V DC
Ii	1 A
Pi group II	1 W

Pi group IIIB	1 W
Pi group IIIC	550 mW (at Ta max. 90°C) 650 mW (at Ta max. 70°C) 750 mW (at Ta max. 40°C)

- Maximum effective internal inductance (Li) / internal capacitance (Ci)

Li	2 µH/m
Ci	0.1 nF/m

Installation / Set-up

The M12 connectors must only be installed, connected and set up by qualified staff. The qualified staff must have knowledge of protection classes, regulations and provisions for apparatus in hazardous areas.
Check whether the classification (see "Marking" above and marking on the M12 connectors) is suitable for the application.

Installation remarks / Installation

- Adhere to the relevant national regulations and provisions.
- The relevant installation regulations must be adhered to.
- The M12 connectors must be protected against intensive electrostatic charging.
- Protect the M12 connectors efficiently against damage.
- The cables must be firmly laid and effectively protected against damage.
- If two intrinsically safe circuits are connected, the differential voltage must not exceed 30V.
- Open cable ends must be connected in a junction box with the min. protection rating IP 20 or outside the hazardous area.
- For the technical data please refer to the data sheet.

Special conditions for safe operation

- If the connector is used in areas requiring category 1G, 1D or 2G units, the connector and the connected cable must be set up so as to exclude intensive electrostatic charging.
- If several intrinsically safe circuits are connected to the socket, the cable must be laid effectively protected against any damage.

Maintenance / Repair

The unit must not be modified nor can it be repaired. In case of a fault please contact the manufacturer.
If needed, you can obtain data sheets or EC type test certificates from the manufacturer.